analytical sample contained 26,349 admissions: 762 stays involved mechanical ventilation, 9495 had ICU time, and 16,092 had neither. Hospital mortality rates were 27.7%, 23.8% and 7.6% for these three groups, respectively. Median cost per stay was substantially higher for those with ventilation ($39,493) versus those with ICU time but no ventilation ($25,798) and those with neither ($7261). Average length of stay in the ICU was 14 days and 9 days for those with and without ventilation, respectively. Average anti-infective drug costs were 1.79 times higher in the ventilator group compared with the ICU group. **CONCLUSION:** VAP is an area of high unmet need. Among these 1500 hospitals, 2003 costs for those with mechanical ventilation were 1.5 times higher than a group of NP cases that were fairly complex, as indicated by some receipt of intensive care services.

PIN12

LIFETIME MEDICAL COST OF CHRONIC HEPATITIS B

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OBJECTIVE: To estimate lifetime medical cost of chronic hepatitis B in the United States from the societal perspective. **METHODS:** A hypothetical 35-year old cohort of 100,000 individuals with chronic hepatitis B was tracked in a Markov model of the natural history of disease. The model assumed standard clinical care for disease complications, but did not include antiviral treatment. Disease outcomes modeled included cirrhosis, hepatocellular carcinoma, liver transplantation and death. Annual transition parameters were estimated from long-term disease progression data in the literature. Outcome specific cost data were derived from published studies and the MarketScan® database. Expected lifetime medical cost was determined as the sum of weighted average medical cost of health outcomes over the cohort lifetime discounted at 3% annual rate and adjusted to 2005 U.S. dollars. Impact of variations in model parameters was assessed in one-way sensitivity analyses. **RESULTS:** The expected per patient lifetime medical cost of chronic hepatitis B for the 35-year old cohort was $34,760 (range in sensitivity analyses: $9367–$59,298). About 73% of the cost was for cirrhosis, 10% for hepatocellular carcinoma and 11% for liver transplantation. The cost varied with the initial age at infection of the cohort: for a cohort aged 25 years at infection, the cost was 11% more than the cost for the 35-year olds, and for a 45-year old cohort, the cost was 16% less than the cost for the 35-year olds. The cost estimate was most sensitive to the annual rate of developing compensated cirrhosis. **CONCLUSIONS:** Life-time medical cost of a chronic hepatitis B patient is substantial. Identification of the disease at early stage for antiviral treatment could reduce the likelihood of developing end-stage liver diseases and avert higher costs.

PIN13

COST OF THERAPY OF UPPER RESPIRATORY TRACT INFECTIONS IN A DEPRESSED ECONOMY

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OBJECTIVE: To evaluate the economic implications of upper respiratory tract infection to the Nigerian society. **METHODS:** It involves Cost of Illness analysis among upper respiratory tract infection Out- Patients in Lagos University Teaching Hospital. Data collected from 182 case notes include; demographics, diagnosis, diagnostic tests, no of visits, and prescribed drugs. Direct and indirect costs were included. The costs include, personnel, diagnostic tests, transport and antibacterial cost. The hospital cost of drugs and tests were used. Stop-watch time studies and monthly earnings were used to calculate the personnel costs. Average time spent at each visit and expected earnings were used to calculate the indirect costs. The current hospital costs were used for all calculations hence neither discounting nor inflation was considered. **RESULTS:** Total cost of drugs = N358,790.00 ($2462.80); Average = N1971.40 ($14.10) Personnel cost = N49,156.40 ($351.12); Average = N270.00 ($1.93) Diagnostic Test cost = N9100.00 ($65.00); Average = N50.00 ($0.36) Transport cost = N36,930.00 ($263.80); Average = N202.91 ($1.45) Indirect cost = N103,350.00 ($738.21) Average = N567.86 ($4.06) Cost of illness = N557,326.40 ($3981.10) Average = N3062.23 ($21.87). Cost of drugs for each disease condition Acute Otitis media (n = 45 = N24, 526.00 ($175.20); Average = N545.02 ($3.90). Chronic Superative Otitis media (n = 37) = N 42,982.00 ($307.01); Average = N1161.68 ($8.30) onchopneumonia (n = 70) = N257, 299.00 ($1837.85); Average = N 3675.41 ($26.25) Tonsilitis (n = 12) = N14, 923.00 ($106.60); Average = N1243.58 ($8.90). Other) = N19060.00 ($136.14); Average = N1058.94 ($7.56). Prevalence of Otitis media in Nigeria = 29.0% in children below 5 years. = 7,772,000 cases (7.7million cases) Average cost of Otitis media = N823.27 ($5.88) Cost of drugs for 7.7 million cases of otitis media alone = N6, 398,454,440.00 (Over N6.3 billion) (>$450million). **CONCLUSION:** Cost of therapy associated with URTI is enormous. This high cost might be partly due to the use of antibiotics in most cases of URTI, a good proportion of which are viral. The use of treatment guidelines is necessary to ensure a wise use of the limited resources.

PIN14

DIRECT MEDICAL COSTS OF PATIENTS WITH HIV/AIDS IN MEXICO

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OBJECTIVES: To estimate direct medical costs associated to adult patients with HIV/AIDS in second and third level hospitals in the Social Security Mexican Institute. **METHODS:** Partial economic evaluation was performed employing a one-year survey to identify patients with HIV/AIDS resource use. The study revised hospital records in 8 second level hospitals and 2 third level hospitals in Mexico City throughout 2003. Resource use estimates include outpatient and inpatients services (visits to physicians or specialists, laboratory and gabinet exams, medications, emergency services, hospitalization, etc.). The research estimates total direct medical costs and average costs per patient per year. The analysis was conducted from the healthcare payer's perspective. All costs were expressed in 2005 US$. **RESULTS:** A total of 1969 adult patients with HIV/AIDS were recruited with an average age of 39 ± 10 years; 86.4% were male. The evolution average time with HIV was of 6 ± 3 years. 29% of patients were in clinical stage A; 26% in clinical stage B and 45% in clinical stage C. The total direct medical cost of these patients on a 1-year follow up was US$1.107.952,58. Eighty-eight percent of this amount corresponds to antiretroviral drugs, 10% to physician's or specialists visits and 2% to non-antiretroviral drugs and laboratory exams. A total of 9.6% of the sample required inpatient services with a mean cost per patient of US$ 3103.2. Outpatient services had an annual mean cost per patient of US$ 5665.1 and the annual expected cost per patient in the Social Security Mexican Institute was estimated in US$ 5964.6. **CONCLUSIONS:** Economic consequences of HIV/AIDS patients are substantial for the Mexican Health Budget, especially due to antiretroviral drugs.

A joint effort among decision-makers, physicians, society, pharmaceutical industry, and the Mexican scientific community in general would be useful for reducing the high costs of these diseases.

PIN15

THE EXPECTED ECONOMIC BURDEN OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) IN COMPLICATED SKIN AND SKIN STRUCTURE INFECTIONS (CSSSI)

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OBJECTIVES: To model the expected rate of clinical failure of initial empiric therapy and economic burden likely to be associated with the presence of MRSA in patients hospitalized with cSSSI in the United States. **METHODS:** Using published data on 1) the prevalence of MRSA and other bacterial pathogens in cSSSI; 2) the *in vitro* susceptibility rates of 5 commonly used antibiotic regimens in cSSSI in relation to the most pervasive pathogens identified above; and 3) estimated costs of failure of initial, empiric treatment of cSSSI from a recent study of a large US multi-hospital database, we developed a model to simulate the expected clinical and economic impact of MRSA. **RESULTS:** At a base case assumption of a 55% prevalence of *Staphylococcus aureus* pathogens in cSSSI, half of them being methicillin-resistant (MRSA = 27.5%), the model projected a clinical failure rate of 35.9% and weighted mean inpatient treatment costs of $5492. At an alternative assumption of zero prevalence of MRSA, the model projected a clinical failure rate of 18.4% and a weighted mean cost of $4869, yielding $623 ($5492 less $4869) as the incremental cost of methicillin resistance to the average patient hospitalized with cSSSI. This translated into an expected health care burden of approximately $500 million for the 800,000 patients hospitalized for cSSSI annually. Raising the market share of antibiotics with *in vitro* activity against MRSA from the current 20% to 50% would reduce the expected economic burden by $200 million; raising it to 100% would eliminate the burden altogether. **CONCLUSIONS:** Our model simulated the expected clinical failure rates and economic impact of use of initial empiric regimens for cSSSI with varying levels of coverage—as represented by *in vitro* activity—for MRSA, and how this expected economic impact may be offset with suitable change in mix of initial, empiric antibiotic therapy.

PIN16

CLOSTRIDIUM DIFFICILE-ASSOCIATED DIARRHEA (CDAD) IN ACUTE HOSPITALS: A PREVALENT COST ISSUE

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OBJECTIVES: Identify new CDAD cases, readmission rate and estimate cost over one year. **METHODS:** All CDAD cases were identified in Massachusetts discharge data using ICD-9-CM codes and patient identifiers. Index stays occurred from October 31, 2001–September 30, 2002. The new case cohort excluded patients with CDAD-related admissions in the previous year. For primary CDAD cases (principal diagnosis: CDAD), all stay costs (accommodations and ancillaries) were deemed related. For secondary CDAD cases, APR-DRG assignment, severity and length of stay (LOS) were used to calculate the incremental care costs due to CDAD. All charges were adjusted (cost-to-charge, inflation, geography) to reflect national costs (2005 US$). **RESULTS:** The 4015 new cases of CDAD identified reflect a prevalence of 1% among hospitalized patients. Almost all (93%) hospitals treated 1 case (range: 1–312). Of 1310 primary CDAD cases, 66% were female, with mean age of 72 years (±17.2), mean LOS of 6.9 days (median: 5) and mean cost of $10,260 (median: $5752) per stay. Secondary CDAD (2705 cases) was similar demographically but led to longer stays (mean: 15.7, median: 11 days); suffered higher ($p < 0.001$) inpatient case fatality rates (13% vs. 5%); and were more expensive than primary cases (mean: $32,352, median: $16,842). For secondary cases, CDAD-related costs comprised 40% ($12,999) of total mean cost. Over one year, 18% of index stay survivors were readmitted for CDAD, within 51 days on average (mean 1.3 readmissions per patient, range: 1–6). Total one-year inpatient cost for CDAD management was estimated at $56 million. **CONCLUSIONS:** CDAD has both clinical and economic consequences. It is widespread in hospitals, generates substantial care costs for those admitted for CDAD management, and increases inpatient costs dramatically when it occurs as a complication. Recurrent CDAD leads to re-hospitalization, typically within two months, further increasing the cost burden of CDAD.

PIN17

A COST-UTILITY ANALYSIS OF PEGINTERFERON ALFA-2A VERSUS PEGINTERFERON ALFA-2B AS THE INITIAL TREATMENT OF HEPATITIS C FROM THE PERSPECTIVE OF THE VETERANS AFFAIRS HEALTH CARE SYSYTEM

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OBJECTIVES: Although the prevalence of hepatitis C virus (HCV) infections is higher among the United States veterans than in the general population, a paucity of pharmacoeconomic research has been conducted from its perspective. This study compared the cost-utility of the current peginterferon regimens from the perspective of the Veterans Affairs (VA) health care system. **METHODS:** A Markov model for treatment-naïve chronic hepatitis C patients was developed to evaluate 1) peginterferon alfa-2a plus ribavirin (PEG 2a + R); 2) peginterferon alfa-2b plus ribavirin (PEG 2b + R); and 3) no therapy. Patient cohorts were 45 or 55 year-old males with liver fibrosis and without cirrhosis. Data for the model were obtained from clinical trials and published literature. All costs were based on VA costs and reflect 2005 U.S. dollars. The lifetime expected costs, quality-adjusted life years (QALYs) gained, and incremental net monetary benefit (INMB) with HCV treatments were determined. Ninety-five percent confidence intervals (CI) were generated from the Monte Carlo simulations. **RESULTS:** Both peginterferon regimens were significantly more cost-effective than no treatment, though no differences in costs or QALYs were noted between the two peginterferon regimens. For 45 year-old cohort with a genotype 1 infection, the INMB was $128,583 (95% CI $79,279 to $177,308) and $128,025 (95% CI $80,425 to $173,448) versus no treatment for PEG 2a + R and PEG 2b + R, respectively. Treatment with either peginterferon regimen produced significantly lower lifetime HCV-related medical costs for genotype 2 or 3 infections, but not genotype 1. **CONCLUSIONS:** PEG 2a + R and PEG 2b + R were found to be similar cost-effective treatments for patients with HCV infections, particularly with genotypes 2 and 3. However, no significant differences in costs or efficacy were observed between these treatment regimens.